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ABSTRACT

Teacher research has emerged in the last decade as a potential source for improving education. Teachers, who work with students daily, have a unique perspective on educational problems. Practitioner, or action, research is defined as trying out ideas in practice to increase knowledge about curriculum, teaching, and learning. Unlike traditional research that has uniform, external guidelines, action research is frequently localized and has limited applicability. The results of action research usually are not published or shared widely. Reviewing literature on action research is complicated by its broad definition and by the variability of research. In the future, action research may become a viable tool for educational research, help transform teachers into political actors, and be quantitatively and qualitatively measured over time. This review of action-research literature uses three criteria to determine if documents are included: the term "action research" must be used, the action-research concept must be developed if not explicitly stated, and any type of practitioner-centered research in a school setting must be mentioned. The paper includes five sections: a history of action research, the action-research concept, a theoretical rationale, practical issues in implementation, and, in an appendix, types and categories of action research. (Contains 106 references.) (JPT)

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A REVIEW OF WRITING ON ACTION RESEARCH (1944-PRESENT)

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Table of Contents

	Page
Introduction	1
A Developmental History of Action Research	4
What Is Action Research?	9
The Rationale for Action Research	18
Practical Barriers to Action Research	23
Summary	28
Appendix: Types of Action Research	30
Bibliography	33

Teacher research has emerged in the past decade as a potential solution to the widely proclaimed crisis in America's schools. The rationale is self evident: If the very individuals who are face to face with students on a daily basis can use personal research to improve their practice, then schools will necessarily improve. Further, adding the voices of teachers to ongoing educational dialogues will both enrich discussions and increase the likelihood that change will occur. This said, however, the prospect of expanding the work of teachers to include educational research is daunting. Traditional classroom practice allows little if any time for the ongoing conduct of research, and, to date, teachers rarely have felt comfortable wearing the mantle of the researcher. In addition, teacher education typically emphasizes the survival skills of lesson planning, instruction, and classroom management, leaving little room in the curriculum for research methods.

Nevertheless, scholars and practitioners alike are now discussing the potential of teacher research in the pages of scholarly journals (Hopkins, 1982; Cochran-Smith & Lytle, 1990; Lytle & Cochran-Smith, 1990), and books presenting methods or results are increasingly common (Hopkins, 1985; Mohr & MacLean, 1987; Kemmis & McTaggart, 1988a; van Manen, 1990; Kincheloe, 1991). Given this growth of interest, it makes sense to look back for lessons learned from a form of practitioner research that developed almost 50 years ago. Action research, purportedly at its height in this country in the 1950's and today often equated with teacher research,[1] re-emerged in the 1980's as a potential approach to school change.

Its informal definition is straightforward: "Trying out ideas in practice as a

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[1] Teacher research, as its name suggests, is "systematic, intentional inquiry conducted by teachers" (Lytle & Cochran-Smith, 1990, p. 8). Although the distinctions often blur, not all teacher research is action research; "teacher lore" (Schubert & Ayers, 1992) can draw on virtual lifetimes of experience, reading, and reflection. However, the notion of action research in schools moves beyond teacher research to include potential research conducted by any members of the school community--students, counselors, principals, parents, etc., often working collaboratively. It is not, however, the purpose of this paper to distinguish between these two concepts. Instead, we support Noffke's (1991) position. In comparing teacher research and action research, she notes, "It is politically strategic as well as consonant with both movements that both action research and teacher research continue to explore the ways in which they are allies, struggling within incomplete conceptions, not defenders of their own distinct, new paradigms" (p. 57).

means of improvement and as a means of increasing knowledge about the curriculum, teaching, and learning" (Kemmis & McTaggart, 1988a, p. 6). Action research, an important category of reflective practice, includes similar activities in several fields, e.g., operational research, social engineering, organization development, total quality management, social welfare research, work democracy research, and formative evaluation (Peters & Robinson, 1984, p. 116; Noffke, 1990, p. 37). As Karlsen (1991, p. 143) notes, "The development of knowledge through this particular approach is not limited to certain professions; we find sociologists, architects, engineers, economists, and psychologists engaged in the endeavor."

The purpose of this paper is to review the burgeoning literature on educational action research. In a traditional review of the literature, the task is first to collect all existing studies on a topic--classic pieces, conceptual definitions, critical analyses, good studies, bad studies, etc.--and then to critique the assembled corpus. For action research in education, this would require gathering materials from several countries over the course of the past fifty years, then discussing what we have learned about change as a result of the action research process, i.e., what the outcomes of action research have shown us about the improvement of educational practice, what we now know as a result, and what more we need to study. Herein lies the challenge of reviewing the action research literature: While there is no shortage of articles, definitions, and conceptual analyses, the very process of action research makes a comparison of studies using its method across time and place relatively meaningless. Some action researchers would even question the appropriateness of attempting a traditional "review of the literature" because such reviews are unavoidably positivist, assuming, e.g., that research has established certain objective truths apart from the researchers who conducted the studies.[2]

Unlike traditional quantitative and qualitative research that holds refereed publication as an external standard for excellence, the outcomes of action research are frequently localized--action and understanding in a given context that may or may not make sense to someone somewhere else. Subjective experience in creating, reflecting on, and "using" action research is critical to its process. In many cases its results are not published beyond the community that participated in the study, except to the extent

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[2] Our thanks to Hugh Sockett for noting this point.

that a theorist involved might base publishable theory on what was learned, in which case the action research has generated traditional social science theory, rather than something distinct to its process. Research on the effects of action research, while becoming increasingly available (e.g., Carr & Kemmis, 1986; Noffke & Zeichner, 1987; Oja & Smulyan, 1989; Elliott, 1991), is not yet commonplace.

In those instances when action research studies are published, their results may speak of local meanings and raise questions for readers, rather than providing definitive learnings about school change that would satisfy a university-trained researcher. Detailed autobiographical narrative and personal reflection have what Sockett (personal correspondence with Fred Newmann, November, 1992) labels a "subjective generalizability" for other practitioners. For example, the action research study of Wood (1988), an elementary school teacher in Wisconsin, describes the five cycles she went through in learning how to use cooperative groups in her classroom. The description of how she improved her technique, cycle by cycle, makes the action research process visible, and the eventual success she describes speaks of the process's power for instructional improvement. The outcome of the study, however, is less about the implementation of cooperative learning than it is about the professional development of the teacher researcher, suggesting a different purpose from traditional research. The results of Street's (1988) study of an Australian job creation project and Cummings' (1986) study of a British pre-school classroom are similar. As Cummings puts it,

> If what I do speaks to me and, perhaps, to others whose daily life bears some resemblance to mine, then surely that is adequate justification for the exercise. After all, the value of any study is likely to be most felt by those most involved. (p. 231)

A second problem in writing a review of action research literature arises from category labels and the difficulty of knowing what, exactly, counts as action research. For example, in Oja and Smulyan (1989), the research study in which the teachers participated involved no direct action on their part, looking instead at descriptive information in their school; yet this process is labelled collaborative action research. In another example, the cases described in Goswami and Stillman (1987) are called teacher research, which is roughly equated with action research, naturalistic research, and classroom inquiry (p. iii), even though the teachers who conducted studies (e.g.,

Alvine, 1987 and Atwell, 1987) clearly took action to improve their writing instruction. Another example, described by Judith Whyte (1986), is the British GIST (Girls into Science and Technology) project in which a team of external researchers investigated the causes of female underachievement in science and technology while themselves simultaneously taking action to change the situation. If researchers act, are their actions necessarily action research?

In the review that follows, three criteria determined whether or not documents were included: first, a central focus on the concept or conduct of action research and the explicit use of the term action research to describe the work[3]; second, central importance to the development of the concept even when the term was not explicitly used (e.g., Tikunoff & Mergendoller, 1983); and third, content that speaks of the challenge of fostering any practitioner-centered research approach in school settings (e.g., the teacher research literature). As a result, material from several fields is referenced here, although given our interest in examining the potential of action research for educational change, the majority of work discussed comes from the field of education. The paper includes five sections: a short history of action research; the concept of action research; a theoretical rationale; practical issues in implementation; and, in an appendix, types and categories of action research.

A Developmental History of Action Research

In 1994 action research will celebrate the 50th anniversary of its naming, although the idea was not entirely new even in 1944. The problem solving method of John Dewey (e.g., Dewey, 1929/1984) and fieldwork in the 1930's by John Collier (Collier, 1945), the Commissioner of Indian Affairs, are clear antecedents. However, it was Kurt Lewin, a social psychologist who fled Nazi Europe, who coined the phrase action research to describe a process researchers could use in communities working to address intractable problems like racism (Lewin, 1946; Peters & Robinson, 1984). Lewin's

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[3] For this paper we seriously considered close to 300 books and articles on or related to action research. Over 100 of those items are included in the reference list. References were taken from the following sources: a 200 item bibliography on action research compiled by Gary Alexander (1991), ongoing searches of the ERIC data base, bibliographic follow-up, and correspondence with several individuals writing in the area.

approach was distinctive: community-based individuals participated in a research process that applied the methods of traditional social science to ongoing problems. Operating within the traditional research paradigm, action research nevertheless provided a place for non-researchers in the research process.

Educators quickly recognized the potential of a research process that linked the approach of education science with the philosophy of progressive education (Noffke, 1990, pp. 21-22), and the first generation of educational action research (McTaggart & Singh, 1986) began. Although ". . . it is as yet unclear exactly how prevalent the practice was even in its 'heydey'" (Noffke, 1990, p. 208), at its height in the 1950's a number of North American theorists developed and expanded the concept in education, altering Lewin's focus on creating a democratic society (Corey, 1953; Taba & Noel, 1957; Shumsky, 1958, 1959). In the eyes of later critics, action research became instead a technical approach for solving school problems, a "rationalized procedure following 'certain steps'" (McTaggart, 1991, p. 13). Those steps generally outlined a traditional research study, with the results judged accordingly.

The fate of action research in the decade following the launch of Sputnik has been well documented (Clifford, 1973; Noffke, 1990; McTaggart, 1991). When critics applied the canons of traditional social science, action research failed to make the grade. Hodgkinson's well-known critique (1957) blasted the "commonsense" approach of action research, blaming teachers for engaging in "easy hobby games for little engineers." His solution clearly lay in traditional research:

> Perhaps if students and teachers became interested and involved in "professional" research, there would be soon no need for action research. (p. 142)

Noffke (1990, p. 71) lists a number of reasons for the decline. For example, given their applied settings and orientation to change, action research studies often suffered from methodological difficulties (e.g., too broad a problem focus, reliability and validity problems), and the realities of teachers' workplaces provided few incentives or support for such activity. At the national level, the ascendancy of "scientific" solutions in an era of grave concern for the future left little room for a research approach that involved "non-researchers." As Hollingsworth and Sockett (1992, p. 4) put it, "The small experiment of action-research in education fizzled." Clifford (1973) is less kind:

> The action-research movement collapsed under its own triviality; except for a

> few dedicated exponents moved by a group-dynamics vision of inservice education and teacher involvement, little talent supported action research. (p. 37)

With the emergence of the research, development, and dissemination (RD&D) model of educational change, traditional action research passed from center stage in American educational writing, although pronouncements of its extinction were premature. As Noffke (1990, p. 208) notes, the Education Index contained action research entries throughout the 1960's, and theorists in other fields (e.g., organization development, social welfare) continued to apply the approach, coupling traditional social science research methods with participation by practitioners in the settings being studied. Up to this time, then, action research had applied the methods of traditional university-based research to real world problems, formally but incidentally involving practitioners in the process. To this day, traditional action research continues to do so, e.g., under the label of participatory action research in organization development (Whyte et al., 1989).

While researchers using the traditional scientific paradigm conducted studies to create generalizable solutions to society's ills, an alternative approach built on the practical work of school teachers and appropriate to the needs of classroom practice emerged for action research. Important to the eventual development of this approach was work that helped to create a fundamental shift in the epistemology of action research. In the writing of Donald Schön (1983, 1987), this shift validated practical knowledge generated by and for professional practitioners. As Hollingsworth and Sockett (1992) explain, the publication of Schön's The Reflective Practitioner in 1983 was critical to the development of teacher research: "Until Schön's book. . . the basic research paradigm remained virtually unchallenged in the US, including among teachers who had begun to do research in their workplaces" (p. 6). The domain of reflective practice was broad, but the inclusion of teacher research under this umbrella gave newfound validity to the knowledge teachers use in their daily practice. Whether this resulted in the empowerment of the teacher's role or the emancipation of the individual holding that role (Hollingsworth & Sockett, 1992), Schön's ideas added fuel to the fires of the teacher research movement.

In education this meant that teachers no longer needed to work either as the subordinates or even peers of university-based researchers, but could instead create

meaningful knowledge for themselves. To the extent that theory would be developed, it would be practical theory grounded in the everyday realities of schools. Houser (1990) labelled this unification of the traditional roles of classroom teacher and researcher praxis, distinguished from action-research in which the roles remained distinct. Collaboration took on new meaning, with teachers helping other teachers to make sense of their own practice. The shift was dramatic.

Work in two countries, the second generation of action research (McTaggart & Singh, 1986), helped create this change. In Great Britain, Lawrence Stenhouse (1975) wrote a process-oriented curriculum text that gave teachers and their students an active role in creating their own classroom knowledge. Moving beyond traditional social science research, Stenhouse's work characterized teaching itself as a form of research:

> The idea is that of an educational science in which each classroom is a laboratory, each teacher a member of the scientific community. . . In short, the outstanding characteristic of the extended professional is a capacity for autonomous professional self-development through systematic self-study, through the study of the work of other teachers and through the testing of ideas by classroom research procedures. (pp. 142-143)

The Humanities Curriculum Project later brought these ideas to life as British teachers worked collaboratively to develop and implement an innovative process curriculum for the humanities (Stenhouse, 1968, 1988; Rudduck, 1988; Elliott, 1991).

In the Ford Teaching Project, Stenhouse's colleagues John Elliott and Clem Adelman (1976) collaborated with over 40 teachers in 12 schools engaged in inquiry/discovery (I/D) teaching, guiding them to become "consciously self-monitoring teachers." The establishment of the Classroom Action-Research Network (CARN) in 1976 documented the international status of this new version of educational action research (Holly & Whitehead, 1984). Stenhouse's ideas also took hold in Australia, where third generation action research (McTaggart & Singh, 1986) found voice in the writings of critical theorists Stephen Kemmis and Robin McTaggart. The Australian view of "critical or emancipatory action research" is advocacy for social change, "not only for the transformation of individual practitioners and the profession of teaching, but ultimately a transformation of the language, organization, and practice of education"

(McTaggart, 1991, p. 30).[4]

In the United States, interest in a form of research involving practitioners and aimed at improved practice also spread in the early 1980's. It was, however, based on the earlier framework of traditional research. Tikunoff, Ward, and Griffin, for example, developed and tested the Interactive Research and Development (IR & D) model as "a research strategy that brings teachers, researchers, and staff development personnel together to inquire as a team into those questions of concern to classroom teachers and to collaboratively plan a means to disseminate their research findings" (Huling, 1982, p. 2). Griffin et al. (1983) distinguished collaborative research from IR &D by underscoring the latter's emphasis on "systematic inquiry with the requisite attributes of the research process, [such as] collection procedures maintained in an undifferentiated manner, accumulation of data which are then subjected to orderly scrutiny, etc." (p. 5). In addition, they claimed that collaborative research's work is localized to the building while IR & D set out to be of immediate and practical use to colleagues in other settings. It is interesting to note that Tikunoff and Mergendoller (1983) make no reference of action research or any of its variations in their work despite an almost identical description of the process.

A second project, Action Research on Change in Schools (ARCS), also engaged teachers in research, but focused on studying the effects of the collaborative action research process: the teachers' developmental stages, the school context variables, and the extent of their individual change (Oja & Pine, 1983; Oja & Smulyan, 1989). Oja and Smulyan (1989) provide detailed descriptions of the teachers who participated in the project at one school, along with their two year struggle to make the process work. In the context of teacher-centered action research, the school-based project described is

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[4] Although critical action research draws upon "the Freirian notion of liberation pedagogy, feminist theory, Afro-centric epistemology and indigenous people's knowledge" (Kincheloe, 1991, p. 108), analyses by gender, race, and class are still noticeably missing from most of the action research literature, whether the author is an academic researcher or a practitioner. This is not surprising considering the absence of questions of gender (Robertson, 1992, p. 2), race, and class brought to bear on education generally. One of the challenges facing action research in the future--and most certainly facing critical and emancipatory action research, given its philosophy--is to overcome what Robertson (1992) calls this "presence of absence," i.e., the unintended invisiblity of gender, race, and class, and to bring such perspectives into ongoing research conversations.

interesting for its rather traditional orientation, i.e., the teachers struggled over the course of two years with a university researcher to compile data and write a formal research report that was presented at a conference, rather than altering school practice directly.

The triumphant emergence of teacher research in American education since the mid-1980's (see, e.g., Myers, 1985; Mohr & MacLean, 1987; Brause & Mayher, 1991) points to the perceived potential of this research process for effecting meaningful change in teachers' work. In contrast to traditional action research, practitioner-centered action research[5] targets self-directed improvement in school practice, whether in the classroom (Stenhouse, 1975; Goswami & Stillman, 1987), in the organization and functioning of the school (Reid, Hopkins, & Holly, 1987; Lawn, 1989),[6] or in the society at large (McTaggart, 1991).

What Is Action Research?

In an earlier review of organization development literature, the definition of Hult and Lennung (1980) details the complexity of the concept we are calling traditional action research:

> *Action research simultaneously assists in practical problem-solving and expands scientific knowledge, as well as enhances the competencies of the*

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[5] We are hesitant to create yet another category of action research, especially since Houser (1990) already has a term--<u>praxis</u>--for the unified teacher-as-researcher approach. However, in trying to distinguish here between the traditional research approach used in the earliest versions of action research (that continue today in other fields) and the new version that arose in education from the work of Stenhouse, Schon, and others who identified the value of practical, professional knowledge, we want to acknowledge the historical development of the concept by maintaining the action research label. Further, it should be noted that practitioner-centered action research is in some cases different from teacher research because <u>any</u> practitioner in education can conduct such studies. In addition, the term <u>teacher research</u>, perhaps unfairly, connotes classroom-centered activities, and the concept of action research is broader than that.

[6] Although not using the name of action research, similar approaches have recently emerged, e.g., the Middle Grades Assessment Program (MGAP) (Dorman, 1985), developed at the Center for Early Adolescence, Chapel Hill, North Carolina, and the North Central Association's Outcomes Accreditation (OA) process (North Central Association, 1989).

> *respective actors, being performed collaboratively in an immediate situation using data feedback in a cyclical process aiming at an increased understanding of a given social situation, primarily applicable for the understanding of change processes in social systems and undertaken within a mutually acceptable ethical framework.* (p. 147, italics in original)

Their article explicates each clause and phrase of the definition, suggesting the importance of each to an understanding of the term.

An analysis of conceptual features provides a more straightforward way of clarifying the dual concepts of traditional action research and its descendant, practitioner-centered action research. Grundy and Kemmis (1988) list three "minimal requirements" for action research:

1. The project takes as its subject-matter a social practice, regarding it as a strategic action susceptible to improvement;
2. The project proceeds through a spiral of cycles of planning, acting, observing, and reflecting . . .; and
3. The project involves those responsible for the practice in each of the moments of the activity. . . (p. 353)

Altered slightly, these three features from the common core of both traditional and practitioner-centered action research.

1. Both are grounded in the real world practice and experience of school-based practitioners.

> School research is "real" research in that it is attempting to address real-life, school-level issues. Alternatively, it could be argued that traditional (theoretical) research represents a massive retreat from the rigours of being relevant and meaningful to change and development from *within* the culture of the school, and having to wrestle with all the concomitant problems that such an approach entails. (Reid, Hopkins, & Holly, 1987, p. 172)
>
> [Action research] takes its cues--its questions, puzzles, and problems--from the perceptions of practitioners within particular, local practice contexts. (Argyris & Schön, 1989, pp. 612-613)

2. The second critical feature of both is a cycle of research activities, which, although often difficult to implement, is implicit in descriptions of the process. Since

its inception, theorists (Lewin, 1946; Corey, 1953; Taba & Noel, 1957; Sanford, 1970; Elliott, 1981; Hopkins, 1985; Carr & Kemmis, 1986; McKernan, 1988) have listed steps in the action research process and drawn figures to chart them. Figure 1 documents the overall commonality of these steps, moving consistently from initial problem framing and information collection, to planning, to action, to observation and data collection, and finally to reflection and re-framing of the problem. Action research is not a one-time effort, but rather a ". . . cyclical process of problem definition, action planning, implementation, data feedback and evaluation" (Hult & Lennung, 1980, p. 245). In one sense, an action research project is never completed, but represents an ongoing commitment to simultaneous action and research. Within this general cyclical framework, Figure 1 also points to slight differences among six influential descriptions.

3. The third feature characterizing both traditional and practitioner-centered action research is the necessary involvement of practitioners. Some action research theorists locate their roots in the work of John Dewey (1929/1984), who wrote,

> . . . it is impossible to see how there can be an adequate flow of subject-matter to set and control the problems investigators deal with, unless there is active participation on the part of those directly engaged in teaching. (p. 24)

In both traditional and practitioner-centered action research, practitioners are actively involved in the research process. These practitioners can be teachers, administrators, or even students, all of whom can play active roles in inquiry about their own classrooms and schools.

What, then, conceptually distinguishes traditional action research from practitioner-centered action research? These approaches differ on two critical features: 1) the theory generated by the action research; and 2) who is involved in and controls the research process.

The theoretical products of action research. While both forms of action research seek to improve local practice, traditional action research has an additional focus on simultaneously generating theoretically valid social theory.

> [Action research] is a field which developed to satisfy the needs of the socio-political individual who recognizes that, in science, he [sic] can find the most reliable guide to effective action, and the needs of the scientist who wants his labors to be of maximal social utility as well as of theoretical significance.

Action Research Steps

Steps.	Lewin 1946 USA	Corey 1953 USA	Taba & Noel 1957 USA	Elliott 1981 UK	Hopkins* 1985 UK	Carr & Kemmis 1986 Australia
Frame Problem.	General idea.	Identify problem.	Identify problems.	Identify initial idea.	General idea/Problem identification.	
	Fact-find.		Analyze and determine casual factors.	Reconnaissance (Fact finding and analysis).	Critical reflection.	Conduct initial reflection in light of thematic concern.
	Conceptualize problem.	Formulate hypothesis.	Formulate hypotheses.		Formulate hypothesis.	
			Gather and interpret data.			
Plan.	Overall plan. Decide first step of action.		Formulate action.	Create general plan of action steps.	Select methodology.	Plan.
Act.	Execute first step.			Implement first action step.		Act.
Observe.		Record actions.		Monitor.	Gather data.	Observe.
Reflect.	Reconnaissance or factfinding-evaluate, gather new insight, plan next step, and modify plan.	Infer generalizations.	Evaluate.	Reconnaissance.	Analyze data.	Reflect.
Repeat Process.	Circle/spiral of planning, executing, and reconnaissance for evaluating, planning the next step and perhaps modifying plan.	Continuous re-testing of generalizations in action situations.		Revise general idea.	Maintain action. Report research. Review process.	Revise plan. Repeat cycle.

*Hopkins says he will present a series of methods and techniques for classroom research, not a step-by-step model. However, his book follows the steps listed.

(Chein, Cook, & Harding, 1946, p. 44)

> Action research is a strategy for using scientific methods to solve practical problems in a way that contributes to general social science theory and knowledge. (Elden & Levin, 1991, p. 127)

Since Lewin, theorists advocating traditional action research have supported the claim that the theory generated through action research is no less valid than that generated in other ways and have even argued that the practical experience is theoretically valuable:

> This by no means implies that the research needed is in any respect less scientific or 'lower' than what would be required for pure science in the field of social events. I am inclined to hold the opposite to be true. (Lewin, 1947, pp. 150-151, cited in Noffke, 1990, p. 40)
>
> Active involvement with practitioners struggling to solve important practical problems is highly likely to open up researchers' minds to new information and new ideas, leading to advances in theory as well as in practice. (Whyte et al., 1989, p. 550)
>
> . . . Fact finding and theorizing that tap the wisdom and knowledge of those who work in the system under consideration produce knowledge that is . . . in certain respects, of greater validity. (Walton & Gaffney, 1989, p. 584)

There are three responses to this claim in the literature. Some (e.g., Hodgkinson, 1957) reject this position--and the viability of theory generated through action research--out of hand, arguing that action research, by emphasizing action over rigorous research design, necessarily achieves utility and feasibility at the expense of validity and reliability. As Winter (1987, p. 2) notes, "Action research is dismissed as muddled science. . ."

A second response, emphasizing the problem-solving nature of action research, argues that it is more important to solve the research's site-specific problem than to design a technically rigorous study, i.e., that action research simply should not worry about the canons of traditional science that generate traditionally valid theory.

> [The action researcher]. . . is not immediately concerned with adding more 'truth' to that body of educational knowledge which appears in articles, monographs, and books. The action researcher is interested in improvement of the educational practices in which he [sic] is engaged. He undertakes research in

> order to find out how to do his job better--action research means research that affects actions. (Corey, 1949, p. 509)
>
> The essential focus is on studying local problems in a local setting. . . The outcomes of such research need not be held up to the criterion of general validity. (Taba, 1957, p. 44, cited in Noffke, 1990, pp. 43-44)

Interestingly, this position was articulated during the first decade when action research was the subject of widespread discussion in education, suggesting perhaps the origins of the practitioner-centered orientation in an era before the writings of Stenhouse and Schön validated the notion of practice-generated theory.

The third response to the validity claim leads to practitioner-centered action research. In contrast to traditional action research, it seeks to create valid theory of a different sort: practical theory that comes from practice and that makes sense to other practitioners.

> I believe that social science makes comparatively little contribution to educational practice, because its theories are oriented towards guiding research rather than towards guiding teaching. So I would want to ask any action researcher what contribution his [sic] work is making to a theory of education and teaching which is accessible to other teachers. (Stenhouse, 1988, p. 58)
>
> Action research involves people in theorizing about their practices--being inquisitive about circumstances, action and consequences and coming to understand the relationships between circumstance, actions and consequences in their own lives. (Kemmis & McTaggart, 1988b, p. 23, emphasis in original)
>
> In combining practice and research functions, participants transcend traditional roles and establish themselves as intellectuals, fully capable of engaging in the most profound acts of theory generation and curriculum development. (Houser, 1990, pp. 58-59)
>
> In emancipatory action research, educational development is understood as a joint enterprise which expresses a joint commitment to the development of educational *practices* as forms of interaction which, taken together, form the fabric of social and educational relationships; common educational *theories* which, taken together, express the understanding of those involved about the educational process, and which direct critical self-reflection towards the issues

> needing to be addressed for the further development of education; and the common *situation*, in which the work of individual classrooms informs and is informed by the curriculum and the educational policy of the whole school. . . (Carr & Kemmis, 1986, p. 204, italics in original)

Noffke (1990) uses five questions adapted from feminist researcher Sandra Harding's work to view epistemological questions from the teachers', rather than the researchers' perspective. Although different forms of action research respond differently to these questions, most challenge the answers of "mainstream" educational research.[7]

In addition, House et al. (1989) point to a distinction between the types of inferences found in formal research studies and in the work of classroom practitioners, noting the need for an expanded conception of validity and new approaches, "most of which we have yet to invent. . . . to arrive at valid causal inferences" (p. 15). In the words of Kincheloe (1991):

> Educational action research is on-going in conception rather than aimed toward the achievement of generalizable conclusions. The conclusions of the teacher as researcher would never be more than tentative generalizations always subject to revision because of their recognition of continuous contextual change and the divergence of differing teaching situations. (p. 81)

The issue of involvement and control. The second difference between traditional and practitioner-centered action research stems from the related issues of involvement and control. The development of action research in the past twenty years suggests a range of potential involvement for both external researchers and practitioners. If in earlier action research efforts the university-based researcher actively guided the process, more recent efforts have suggested that this involvement is a variable that can range from leadership (Oja & Smulyan, 1989), to equal collaboration (Whyte et al.,

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[7] The five questions Noffke (1990) uses to analyze the literature are the following: 1) Who can be a knower? (Can teachers, parents, children, etc.?); 2) What is the appropriate relationship between the researcher and her/his subjects? (Must the researcher be disinterested, dispassionate, and socially invisible to the subject?); 3) What tests must beliefs pass in order to be legitimated as knowledge? (Only tests against "expert" or "outsider" experiences and observations?); 4) What kinds of things can be known? (Are some topics more knowable than others? Can "subjective truths" count as knowledge?); 5) What should be the purposes of the pursuit of knowledge? (To produce information for "experts" or for teachers/practitioners in the site?) (pp. 88-90)

1989), to a consultant role (Elliott & Adelman, 1975), to involvement as an equal among equals (McTaggart, 1991). In traditional action research, researchers and "subjects" (practitioners) work together, typically under the guidance of the researcher:

> Clearly, the emphasis is on the action-motivating effects of having research subjects participate in the research at every stage. (Cook, 1984, p. 5)
>
> People in the organization or community under study participate actively with the professional researcher throughout the research process from the initial design to the final presentation of results and discussion of their action implications. (Whyte et al., 1989, p. 514)

If research is traditionally the work of the university researcher, the action research labeled by Lewin[8] and later developed by theorists like Corey, Taba, Rapoport, and Whyte specifies the explicit involvement of both university researchers and local practitioners, each of whom adds something to the research process. ". . . Each group represented . . . contributes different expertise and a unique perspective. . ." (Smulyan, 1984, p. 1).

When both groups participate, researchers bring a set of technical skills to the research act, ". . . ensuring that the basis--data, assumptions, interpretations--is valid in a broader sense, to the research community. . ." (Karlsen, 1991, p. 149), and practitioners bring a thorough knowledge of the context. The expertise of the researcher necessarily dominates the research process, particularly since traditional action research seeks to generate valid social science theory. For example, in the Spanish case study described in Whyte et al. (1989), a researcher introduced members of his team to the concepts of non-parametric statistical analysis, enabling them to analyze data in a useful way that would otherwise have remained unknown. Given their perspective, the local team members contextualized the analysis and eventual outcomes for the benefit of the university researchers.

However, making an important distinction, Noffke (1990) points to a continuing tension in action research between its use to democratize the process of research and to increase individual autonomy, and its potential use by people outside local settings for

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[8] Before his untimely death in 1947, Lewin wrote a total of only 22 pages on the topic of action research (Peters & Robinson, 1984, p. 114).

"social engineering," however high sounding and well intentioned:

> . . . The fundamental principles of many who are engaged in action research include both teacher autonomy and a desire that research serve moral and ethical ends such as justice or equality. (p. 80, emphasis in original)

In practitioner-centered action research, therefore, practitioners--teachers, administrators, and other members of the school community--control the research process, a potentially dramatic change in research's political landscape:

> Action research is an 'alternative paradigm' pressing for change from the 'bottom up,' characterized by collegial and collaborative relationships between [sic] teachers. (Wallace, 1987, p. 98)
>
> Action research is the scientific process whereby in a given problem area, where one wishes to improve practice or personal understanding, inquiry is carried out by the practitioner. . . (McKernan, 1988, p. 174)
>
> Power within emancipatory action research resides wholly with the group, not with the facilitator and not with the individuals within the group. (Grundy, 1982, p. 33)
>
> Action research is the process through which teachers collaborate in evaluating their practice jointly, raising awareness of their personal theory; articulate a shared conception of values, try out new strategies to render the values expressed in their practice more consistent with the educational values they espouse; record their work in a form which is readily available to and understandable by other teachers; and thus develop a shared theory of teaching by researching practice. (Elliott, 1985, p. 242)

Recent work in Australia, fourth generation action research (McTaggart & Singh, 1986), promotes collaboration by a group of committed colleagues, with leadership and process facilitation changing depending on what is being studied. In this approach to action research, external researchers must not dominate or control the process. McTaggart (1991) discusses the fact that many action research projects have relied on outside facilitators, who, despite aspirations to empower teachers, might actually disempower them. His hope is that

> In fourth-generation action research, action researchers will no longer serve as facilitators of critical processes for others. So-called facilitators will not have

> any special status but *participate* as organic intellectuals (Giroux, 1986) in critical communities struggling for emancipation. . . (p. 60, emphasis in original)

As Carr and Kemmis (1986) put it,

> . . . The role of facilitator in a generally collaborative group is one which can, in principle, be taken by any member of the group; an outsider taking such a role persistently would actually undermine the group's collaborative responsibility for the process. (p. 204)

In sum, practitioner-centered action research is research of the practitioner, by the practitioner, and for the practitioner, with the traditional role of conventional theory development and the control of the external researcher lying elsewhere. It must be noted, however, that this approach is not universally accepted. Clandinin and Connelly (1992), for example, note that

> . . . This view merely replaces one set of reform intentions with another: Teachers are now required to develop knowledge, undertake research, change, grow, reflect, revolutionize their practice, become emancipated, emancipate their students, engage in group collaboration, assume power, and become politically active. (p. 377)

The Rationale for Action Research

What is the ongoing appeal of action research, whether traditional or practitioner-centered? In the almost fifty years since its naming, proponents have written variously of potential benefits in four areas--individuals; practice; theory; and social change--although, to date, there is little formal research support for these claims.[9] Often linked conceptually, these areas can be difficult to separate. For example, Whyte et al. (1989) connect improved theory and practice:

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[9] As noted at the beginning of the paper, even to posit the existence of such research may smack of a positivism that is inimical to action research as many action researchers now discuss it. We are, however, writing within a genre (the literature review) and summarize here what we found in our search of the literature. And despite there being little "formal" research available, we know of numerous examples of schools using an evaluation or action research process for ongoing improvement (e.g., members of the League of Professional Schools, a program validated by the National Diffusion Network).

> Rethinking past practice leads to theoretical reformulation that in turn leads to improved practice. The processes of rethinking both theory and practice thus strengthen both theory and practice. (p. 540)

Although such overlap exists, each component of the rationale nevertheless merits separate discussion.

Benefit to individuals. Action research seeks to make sense of what happens when people implement change--to create an "understanding of the totality of a given social situation" (Hult & Lennung, 1980, p. 147). As Noffke and Zeichner (1987, p. 3) note, "In almost every report of an action research project, claims are made by researchers and/or facilitators about the value of action research in promoting changes in teacher thinking." Most claims for the individual benefit of action research focus on its effects on practitioners: the benefit of personal or professional self-development through participation in the action research process. Individual understanding can be at two levels: understanding the effects of the specific action taken; or understanding the effects of the process of change itself. As some questions are answered, others emerge to take their place, for with understanding comes a fuller awareness of what more there is to understand. This is true for traditional as well as for practitioner-centered action research, although, as noted previously, what this process looks like in practice is not well documented.

In discussing the effects of action research on individuals, writers emphasize different components of the development of this understanding, identifying specific knowledge, skills, or attitudes potentially developed. Taba and Noel (1957), for example, write that one purpose of action research is

> To change those who are making the changes, that is, to enhance the insights of the teachers, to alter their attitudes, to extend their perspective on the learning process or to master the needed skills in fact finding and in use of evidence (p. 43).

Emphasizing personal growth, the work of Abraham Shumsky in the 1950's speaks of teachers as self-aware individuals who use action research for the development of personal competencies or understanding (Shumsky, 1958, 1959). Clifford (1973) notes that action research may create an opportunity for teachers to grow creatively in an often stifling, bureaucratic environment. Tikunoff and Mergendoller (1983, pp. 226-

227) discuss the merit of teachers acquiring the skills and attitudes of the researcher. The projects described in Oja and Smulyan (1989) and Watt and Watt (1992) document this:

> Teachers engaged in action research emphasize that personal and professional growth result from participation in the process of collaborative action research. They frequently suggested that their understanding of the process was ultimately a more valuable outcome than the research project itself. (Oja & Smulyan, 1989, p. 207)
>
> The educators conducting the research report that the process, which is almost always undertaken on top of already over-busy professional lives, is a source of professional renewal rather than burnout. (Watt & Watt, 1992, p. 5)

Kemmis and McTaggart (1988a, p. 23) highlight the improvement of understanding as one of the purposes of action research.

A potential benefit of practitioner-centered action research for theorists like Stenhouse, Elliott, Kemmis, and McTaggart is the empowerment possible when practitioners, "rather than specialist researchers and theorists, [take] responsibility for generating their own expert knowledge" (Elliott, 1985, p. 241). In other words, ". . . that part of the research process for which the researcher is responsible is not the only source of knowledge" (Karlsen, 1991, p. 147). In a collaborative effort, teachers can lay claim to the research process with confidence, rather than deferring to outside experts, gaining "reinforcement, recognition, and respect" (Jacullo-Noto, 1984). The collaborative action research process reduces individual risk, while allowing all involved the potential for empowerment through improved self esteem, self confidence, and self awareness (Kemmis & McTaggart, 1988a).

The traditional action research process also holds potential benefit for individual researchers. As Whyte et al. (1989) note, in action research ". . . the researcher is constantly challenged by events and by ideas, information, and arguments posed by the project participants" (p. 537). This "continuous mutual learning strategy" may lead to personal or professional development for university-based researchers, as well as for practitioners.

Improved practice. Common to both traditional and practitioner-centered action research, arguments for the use of action research to improve practice fall into two

categories. First is the notion that its holistic, collaborative approach will allow people to continue their activities, but simultaneously to develop realistic solutions to ongoing problems. The inclusive nature of action research brings a range and variety of talent to bear on problems of interest, using the "democracy of group planning" (Clifford, 1973, p. 22) and the "rational discourse" of participants (Grundy & Kemmis, 1988). As Taba and Noel (1957, p. 43) state, one of the general aims of action research is to "produce evidence and insights on which to base changes in . . . practice." "Action research can be seen as a method for practitioners to live with the complexity of real experiences while, at the same time, striving for concrete improvement" (Kemmis & McTaggart, 1982, cited in Noffke, 1990, p. 135).

Second, proponents argue that action research increases the likelihood that improved practice will actually occur:

> We propose that innovative change efforts by practitioners that incorporate the spirit and techniques of inquiry, discovery, and invention produce more significant and lasting innovations . . . (Walton & Gaffney, 1989, p. 584)

Because practitioners are directly involved in planning the change, presumably their commitment to it is higher. There is also an assumption that, because of input from the people who work there, the proposed change will be feasible in existing situations. The work of Stephen Corey (1952, 1953), for example, views action research as the means, over time, for teachers to improve the educational practice of schools. In addition, the interactive nature of the action research process insures that the use of the research is literally built into the study's ongoing action planning (Tikunoff & Mergendoller, 1983, pp. 226-227).

More practical theory. For some theorists an important part of the rationale for action research relates to the development of "better" theory, i.e., theory that can contribute more directly to improved practice. This is true for both traditional and practitioner-centered action research, although the form of the theory generated will differ dramatically. In traditional action research, the assumption is that placing university-trained researchers in change settings, working with practitioners, will lead to actions and theory that incorporate the best ideas of both worlds. The organizational setting simultaneously provides a context for theory building and a means of theory testing (Argyris & Schön, 1989, p. 619). In a cost-effective coupling of

effort, practitioners keep theorists current, and theorists help practitioners make sense of their practice:

> . . . Fact finding and theorizing that tap the wisdom and knowledge of those who work in the system under consideration produce knowledge that is more relevant to practice. . . (Walton & Gaffney, 1989, p. 584)

Practitioner-centered action research is based on the premise that the self-generated theory of those on site is necessarily more directly related to improved practice than that generated in other ways. It is important to note that for both types of action research, the claim that the theory generated is somehow "better" presents a conceptual and methodological challenge.

Social change. Again true for both traditional and practitioner-centered action research, the final component of the rationale for action research is also the broadest, and, again, these claims would be difficult to prove. Some proponents have, since the earliest days, seen action research as a means of "bringing a democratic society to its highest potential" (Blum, 1955, p. 4). The development of action research during the era of the Holocaust and Lewin's commitment to understanding racial discrimination point to the roots of this belief. In this view, action research is not

> . . . an alternative to existing social science but a way of dramatically enhancing our achievement of the goals of theoretical understanding and social betterment by widening the range of strategies at our disposal. (Whyte et al., 1989, p. 550)

Expanding this tradition, two forms of practitioner-centered action research--critical and emancipatory action research (Carr & Kemmis, 1986; McTaggart, 1991; Kincheloe, 1991)--take as their rationale not only increased individual freedom, but the improvement of the situations and the society in which practice occurs. For McTaggart (1991), action research and social change efforts become one and the same:

> Action research will become part of a form of life for groups broadly committed to social action and educational reform. It will often be associated with specific projects committed to equality of access to education, and legitimate participation. It will be emancipatory or it will not be called action research at all. (p. 67)

Emancipatory action research makes explicit the political nature of the research process and the importance of teachers' claiming it as their own.

> Our emancipatory system of meaning rests on a rejection of social relations and serves to ground a view of teacher professionalism which uses action research as a vehicle of empowerment via a more sophisticated appreciation of the often tacit outcomes of schooling, the inner world of students, the ideological effects of the structure of schhols and school reform, and the forces which shape teacher self-image. (Kincheloe, 1991, pp. 34-35)

To summarize, the four components of the rationale for action research provide numerous reasons to support the process. One purported outcome of action research is increased understanding and varying skills for individual practitioners and, when they are involved, for researchers. A second potential outcome of action research is purposeful action and reflection--and over time improved practice--because action research by its very nature seeks to help practitioners improve what they are doing. For many theorists, more practical scientific knowledge or theory is a third possible outcome of action research; proponents argue that action research generates theory, whether traditional or practical, that is more likely to improve practice because it emerges from specific situations and contexts. Finally, some proponents argue that action research creates a viable mechanism for social change toward particular values such as equity, justice, and democracy. From the perspective of traditional social science, there is discouragingly little information documenting such outcomes; however, given the nature of action research, creating such documentation may well be beside the point.

Practical Barriers to Action Research

Despite extensive writing on the subject and its acknowledged potential for effecting change, action research remains today on the margins of both school and university communities. Cochran-Smith and Lytle (1991) describe barriers to research undertaken by teachers, arguing that they are subtle and deeply embedded in the culture, assumptions, and traditions of education. They cite four major obstacles: teacher isolation, occupational socialization, the knowledge base for teaching, and the reputation of educational research. Our review identified four additional barriers to the practice of educational action research: lack of training, lack of time, the need for continuing motivation and support, and societal context. Taken together, these barriers

fall into three categories: philosophical assumptions about research; the current structure of schools; and interpretations of societal context, pointing to the highly political nature of the development of teachers' action research.

Assumptions about research. Cochran-Smith and Lytle (1991) criticize the assumption that teachers have no role to play in the generation of the knowledge base for teaching, but rather are expected to implement technical skills learned from university researchers. As discussed earlier, practitioner-centered action research counters this traditional assumption by encouraging teachers' participation in the creation and use of practical knowledge. "The teacher herself [sic] develops theories in order to 'interpret, understand, and eventually transform the social life of school'" (Smyth, 1987, p. 12). This is a dramatic change in assumptions about research. In arguing a critical approach, Kincheloe (1991) makes the point clearly:

> Critical action research begins with the teacher's construction of a tentative system of meaning, a source of authority to which they look for philosophical guidance in considering the purpose not only of their research but of their teaching. (p. 108)

Using existing research only as a starting point directly attacks the problem that many teachers reportedly have with educational research. As Jones (1989) pointedly stated,

> . . . Much research related to education had the cutting edge of sponge. . . Research did not speak the truth to me. These works seemed more concerned with statistics than sensitivities; rats rather than brats; research rather than the researched. (p. 51)

Teachers report seeing research as distant, uninteresting, irrelevant, counterintuitive, unusable, or used to blame them for the failings of the larger educational and socio-political systems. Such a negative view of research provides few incentives for teachers to join as research team members. Given the participatory nature of practitioner-centered action research, this barrier can be immediately overcome when practitioners take charge of the research process. For many teachers in our experience, however, deep-seated beliefs about the value of traditional quantitative research make such an action difficult.

The current structure of schools. Even if teachers believe they should help to develop the knowledge base of teaching, the current structure of schools works against

the likelihood of their doing so. Since the image of teaching is traditionally that of autonomous performers in a classroom of children, "when teachers are out of their classrooms or talking to other teachers, they are often perceived by administrators, parents, and sometimes even by teachers themselves as not working" (Cochran-Smith & Lytle, 1991, p. 4). This cultural norm of autonomy leads to an isolation that mitigates against the collaborative and social activity required for action research. In addition, sharing data "carries the risk of bringing latent conflicts and tensions out into the open" (Elliott, 1991, pp. 60-61) in a culture that avoids disruptions in staff relationships.

The occupational culture of teaching also perpetuates the myth that good teachers rarely have questions they cannot answer about their own practice or about the larger issues of schools and schooling (Lortie, 1975). Further, the culture of teacher education "has tacitly instructed teachers across generations to undervalue the domain of theory while avoiding basic questions of the ideological, psychological, and pedagogical assumptions underlying their practice (Kincheloe, 1991, p. 15). In contrast, researchers need to ask questions, discuss failures, and challenge traditional practices.

A particular problem for practitioners involved in action research is a lack of research knowledge and an unfamiliarity with research methods that consequently inhibits their vision of themselves as researchers. According to Elliott (1991), when research is completed, teachers reportedly distrust the generalizablity of their work, assuming it will be of little practical interest to other teachers. Given the extensive and classroom-oriented nature of pre-service requirements, few teacher education programs even provide cursory introductions to research design, quantitative and qualitative methodology, and statistical analysis.[10]

But even if these barriers--isolation, occupational socialization, and research training--were overcome, the barrier of time would continue to work against the action research process in schools. Time is a critical factor in the process of action research and is typically the barrier that comes first to teachers' minds. Unlike other professions that are organized to support research activities, teaching is a profession in which it is extremely difficult to find enough time even to collect data, and almost impossible to find time to reflect, re-read, or share with colleagues (Goodlad, 1984;

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[10] It should be noted, however, that some would question the value of additional teacher study in this area, knowing that some other content would have to be dropped.

Griffin, 1986; Zeichner, 1986). We are relatively certain that "the most important resource for improvement is time with colleagues: time for [faculties] to examine, debate and improve their norms of civility, instruction and improvement" (Bird & Little, 1986, p. 504). Yet at this point, school structures have not changed to reflect those values, and neither teachers nor administrators in large enough numbers have demanded that the structures change. The awareness of the necessity to wrestle with the politics of time in schools is, however, increasing.

> Doing teacher research cannot simply be an additional task added to the already crowded teachers' day. . . . If teacher groups are to become communities, participants will have to integrate research more fully into the ongoing activities of the school day and work out some of the difficult issues associated with the politics of time. (Cochran-Smith & Lytle, 1991, pp. 12-13)

One potential solution to the time problem is the use of existing structures (e.g., creative scheduling within the school day, graduate degree program requirements, or university faculty service requirements) to facilitate action research. Recent work of McTaggart (1991) and Kincheloe (1991) argues that practitioners themselves should form critical communities, without outside support. In practice, given the current organization of schools, such commitment to conducting research may be difficult to initiate and sustain without the involvement of external agents. Lonnquist and King (1992), for example, found that teachers participating in action research concluded they would not have conducted their research projects or continued through the first year without an external relationship with university colleagues who scheduled meetings, set timelines, and provided support and "friendly nagging." As McTaggart (1991) notes, "For the time being at least, teachers and principals may not have conditions of work which allow (or encourage) continuous engagement with action research projects" (p. 66).

Critical interpretations of societal context. The final category of barriers is located in the work of theorists who apply a critical perspective to the work of teachers and the potential of action research. In failing to examine the school situation contextually, these theorists contend, traditional positivistic research fails to consider numerous reasons for existing barriers to educational action research. Critical theory would require us to ask fundamental questions about action research in the context of

U.S. schools. For example,

> What are the assumptions about the specific working conditions in schools (e.g., isolation, lack of tangible reward, etc.)? Which aspects, if any, are not addressed? What is assumed about relationships of authority and control within schools that affect or are affected by participation in action research? What changes in the nature of the teacher's workplace does each seem to require? (Noffke, 1990, p. 151)

The critical and emancipatory action research discussed in Carr and Kemmis (1986), Kincheloe (1991), and McTaggart (1991) provides answers to some of these questions. While it is not the intent of this review to summarize this extensive literature, two examples provide the flavor of this critique. Michael Apple (1991), for example, points to the fact that teaching continues to be women's work:

> Unfortunately, our society, as so many others, seems to care less about work that is done largely by women. In general, when a job has been defined as mainly women's paid work, it is subject to greater external control, less respect, lower salaries, and reduced autonomy. (p. 283)

In this light, action research by teachers is unavoidably lower in the research hierarchy than that of university-based researchers. Kincheloe (1991) details other reasons for the lack of teachers' power:

> Though it may be difficult for many of the proponents of action research to admit, part of the reason why teachers don't appropriate more authority involves the fact that they are insufficiently educated to take this step. . . Too much teacher education focuses student attention on short-term survival skills that do not offer the prospective teacher frames for examining their [sic] own teaching or subjecting their own and their school's practices to questions of educational purpose or social vision. . . (p. 15)

Our review suggests that if action research is to live in schools, a number of barriers must be removed. Teachers must accept new assumptions about their appropriate role in generating knowledge about teaching and learning. Educators must alter existing structures that isolate teachers, discourage their collaboration, and provide them too little information and time for action research. The structural changes of teacher teaming, schools within schools, continuous improvement approaches, and site-

based management may create opportunities for institututionalizing action research processes. Further, the larger questions that critical theorists pose, if addressed, also create opportunities for action research to drive dramatic reform in the worklife of teachers, although it remains to be seen how effectively a critical approach can assail the bureaucracy of traditional education in this country.

In spite of the multiple barriers listed, examples exist of communities of teachers, e.g., the Logo Action Research Cooperative in Wisconsin and the Philadelphia Learning Collaborative, who, following a period of training and experience with action research, now see research as an essential part of being a conscientious teacher (Youngerman, 1991; M. Watt, telephone conversation, September, 1992). Such experience builds on the work of progressive educators who since the turn of the century have used child study to improve their professional practice. In one sense, what is surprising is not that action research faces so many barriers, but rather that we have not yet succeeded in institutionalizing the process in our schools. As Jean Rudduck (1984) once wrote,

> Indeed, one could argue that it is the child in the everyday world of the classroom, where the pattern of teaching and learning remains unexamined, that is at risk because he or she is subject to constant unmonitored and unreflected-on action. *Not* to examine one's practice is irresponsible: to regard teaching as an experiment and to monitor one's performance is a responsible professional act. (p. 124, emphasis in original)

Summary

After fifty years, the widespread discussion of educational action research in the current literature suggests the growing appeal for researchers and practitioners alike of this approach to improving school practice. The development of action research over time, however, points to a major conceptual shift: from a traditional approach in which practitioners participate in a research process that generates traditional social science theory along with improved practice, to a practitioner-centered approach that improves practice, and generates contextualized, practical theory. Using a similar cyclic process, external researchers direct and control the process in the first approach; practitioners take charge of their own studies in the second. Although little research currently

available supports the claims, the rationale for action research includes four areas of potential benefit: to individuals; to practice; to theory; and, in the broadest terms, to society at large. However, given the sizeable number of practical challenges to the process, including a lack of training and time, the prospect of fostering action research in schools is daunting.

In conclusion, it seems, on the one hand, that what we have learned about educational change as a result of the action research process to date is limited, i.e., while researchers and practitioners seem to find the process interesting and beneficial (witness the number of articles and books on the topic), we cannot yet definitively point to explicit ways in which it leads to the improvement of educational practice. On the other hand, an alternative view would label such a claim conservative, holding that we neither cannot nor should not demand such "proof" and instead encouraging school-based teachers and administrators to add their voices to a continuing dialogue around practical theory. The work of the next decade will be threefold: 1) to see if any form of action research can become part of the culture of schools as a viable teacher activity and means of research for school improvement; 2) to see if action research assists in the transformation of teachers into political actors who work to change the functioning of the classroom, the school, and society at large; and 3) to document, both quantitatively and qualitatively, the effects of the process over time.

Appendix
Types of Action Research

Noffke (1990, p. 4 and p. 217) clearly points to the limitations of categorical thinking about action research: category systems are static, hierarchical, and may hide useful commonalities among types. Nevertheless, people have sought to distinguish between and among different processes that use the label of action research. In several instances, it is arguably difficult to see clear distinctions, particularly when different theorists use the same phrase (e.g., participatory research) to describe different things. Overall, it is difficult to see any benefits deriving from this abundance of categorical labels. They are included here, however, because not to include them is to omit a portion of writing on action research.

Traditional action research. The action research of the 1940's and 1950's is sometimes referred to as "traditional." This includes the work of Lewin (1946) that addresses intractable social issues (e.g., racism and prejudice) and seeks to integrate social action and social theory. In education, traditional action research also describes the work of theorists in the 1950's (Corey, 1952; Taba & Noel, 1957; Shumsky, 1958, 1959) who dramatically altered Lewin's concept, focusing less on democratic issues in society and more on technical solutions to classroom problems in education or personal development issues (Noffke, 1990). In our terms, traditional action research refers to the collaborative use of a traditional research approach by university- and school- or organization-based participants, typically led by the university collaborators.

Collaborative action research. This is the phrase Stephen Corey used to describe his approach to action research (1952, 1953). It includes formal steps for the action research process and emphasizes improved classroom practices, rather than the social issues discussed earlier by Lewin. The term is also used by Oja and Smulyan (1989) to describe their action research process, "which engages teachers in all aspects of the research process as they study their classrooms or schools" (p. vii). It differs from the concept of collaborative research (Sirotnik & Goodlad, 1988; King, Schleisman, & Binko, 1991), which, like Whyte's participatory research, merely describes a

research activity that involves practitioners in its process in limited ways.

Technical action research. Based on the Aristotelian notion of techne, technical action research is the first of three categories of action research Grundy (1982) discusses. In this most limited of the three types, a research facilitator convinces a group of practitioners to implement an innovation (e.g., cooperative learning or assertive discipline) according to his or her pre-set specifications.

Practical action research. Grundy's second category, practical action research, is based on the Aristotelian notions of phronesis and praxis and "seeks to improve practice through the application of the personal wisdom of the participants" (p. 27). Working with a group of colleagues and assisted by a facilitator, a teacher would carefully and reflectively implement an innovation that he or she believes is "good" and will assist students. Practical judgment stemming from the accumulated wisdom of earlier experience plays an important part in practical action research.

Emancipatory action research. This is the third and most complex category of action research for Grundy and stems from the work of German philosopher Jurgen Habermas. In emancipatory action research, a group of practitioners comes together with critical intent, and, through a process of deliberation involving "symmetrical communication," organizes both "enlightenment" and "action." A facilitator can assist the group process, but "power within emancipatory action research resides wholly with the group, not with the facilitator and not with the individuals within the group" (Grundy, 1982, p. 33). Carr & Kemmis (1986) describe a group of practitioners who accept responsibility for their own "emancipation from the dictates of irrationality, injustice, alienation and unfulfillment" (p. 204).

Critical action research. Tripp (1984) distinguishes between emancipatory action research, in which critical reflection leads to social action, and critical action research, which stops short of action. McTaggart (1991) does not find the distinction helpful.

Participatory action research (PAR). In one use, this term comes from the field of organizational learning in business, industry, and agriculture, specifically from the writing of William Foote Whyte (1989, 1991). In Whyte's PAR, researchers and practitioners collaborate to solve practical problems and generate valid social theory simultaneously. To Whyte, it differs from participatory research in which members of

the organization also participate in research but do not link the research process directly to action (1989, p. 506). This is quite different from the participatory research or participatory action research discussed in Brown and Tandon (1983), Fals-Borda (1985), and Fals-Borda and Rahman (1991), which emerged from work with oppressed peoples in the Third World and makes explicit its political nature. Grundy (1982, p. 25) also uses the term participatory action research as the overarching category in her discussion of the three modes of action research.

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